

BACKGROUND, PURPOSE AND POLICY RECOMMENDATIONS RELATED TO THE GOVERNOR’S COMMITTEE ON PEOPLE WITH DISABILITIES

Note: This document contains background information and policy recommendations related to the issue area of “Emergency Management” only. To access the Committee’s full report which covers ten issue areas, please visit the Committee’s website [here](#).

EMERGENCY MANAGEMENT

GOAL

Promote a Whole Community approach to the full inclusion and participation of Texans with disabilities in the emergency management life cycle.

Overview

Texas has an important role to play in building the emergency preparedness and resilience of our nation as a whole. Texas’s large population, diverse geography, and the wide range of natural disasters that Texas regularly faces make our State uniquely situated to contribute to the national dialogue about emergency response and recovery. The Governor’s Committee knows that Texas’s greatest resource is its people; throughout our recommendations we encourage enhanced civilian participation in all stages of the emergency management process. In particular, we call for enhanced participation by people who have traditionally been left out of the planning process, but who bring distinct perspectives and contributions: people with disabilities and those with access and functional needs. For purposes of discussion in this document, Whole Community is defined as a concept in which emergency management professionals and all demographic groups of the community come together to prepare, respond and recover from disasters, natural and manmade. According to the 2011 FEMA publication, [*A Whole Community Approach to Emergency Management: Principles, Themes, and Pathways for Action*](#),

[t]he challenge for those engaged in emergency management is to understand how to work with the diversity of groups and organizations and the policies and practices that emerge from them in an effort to improve the ability of local residents to prevent, protect against, mitigate, respond to, and recover from any type of threat or hazard effectively. ¹

Building the nation’s resilience will require national and interstate participation, involving open and bottom-up strategy. Increasing the nation’s resilience to natural and human-caused disasters will require complementary federal, State and locally-driven actions that center on a common vision. For the purposes of discussion in this document, resilience is defined as “the capacity of individuals, communities, companies, and the government to withstand, respond to, recover from, and adapt to disruptive events.” ²

Successful collaborations toward enhanced resilience will require input from a wide range of community members, including people with disabilities, people with access and functional needs, children, aging Texans, people who do not speak English, and other subgroups that have the potential to be particularly vulnerable (and valuable) during a disaster. ³

Improving resilience cannot be distilled down to one state or federal policy but rather the functions of government and community at all levels should be guided by a set of principles and practices that advance resilience.⁴

Organizations involved in emergency management generally agree that working across legal, organizational, community and cultural boundaries will increase our ability to recognize, measure and mediate risk, fostering a unity of effort that will help us create and sustain a more resilient world. And to a notable degree, practical efforts have been made on many levels to do just that. But as we learn from recent emergency situations, more effective approaches and solutions become apparent, and incorporation of those lessons into future planning becomes vital.

Our system for emergency management in Texas has for the most part been natural disaster specific; however, an all-hazards approach that includes issues related to cybersecurity and non-natural disasters could prove extremely beneficial for Texas.

The emergency management community faces a future with challenges likely to be significantly different from those we confront today. Powerful drivers of change, such as globalization, technological development, decentralized and leaderless terrorists networks and the changing roles of individuals in society, have real potential to reshape the context within which we will operate. Addressing these transformations will be challenging; confronting the complexity that arises from the interaction of multiple drivers – such as demographic shifts, technology, environmental changes, and economic uncertainty – will require entirely new approaches, tools, and capabilities.⁵ As many states do, we have a centralized top-down system that is increasingly asked to deal with situations or disasters that are decentralized and complex.

Public safety, public security, and disaster management organizations have already taken some steps to address these emerging challenges. However, the increasing pace and complexity of change calls for inclusive engagement and action so that we can proactively plan for and address shifting trends together, as a community.

Shifting demographics and the rate of technological innovation will challenge the way we plan and communicate with the public [...] Constraints on spending at all levels—federal, state, local, and tribal—are forcing and will continue to force us to rethink what activities we can truly afford to do and how to build partnerships to accomplish our objectives. At the same time, more frequent and more intense storms will present operational challenges and complexities. [...] As U.S. demographics change, we will have to plan to serve increasing numbers of people with disabilities [and other subgroups]. It will be crucial to engage these communities as future challenges strain our community's resources and capabilities.

The emergency management community faces increasing complexity and decreasing predictability in its operating environment. Complexity will take the form of more incidents, new and unfamiliar threats, more information to analyze (possibly with less

time to process it), new players and participants, sophisticated technologies, and exceedingly high public expectations. This combination will create a vastly different landscape for risk assessment and operational planning. Pressure to perform in this environment will be extraordinary.⁶

“To a greater degree than at any point in history, individuals and small groups—from nongovernmental organizations (NGOs) on the one hand to criminal networks and terrorist organizations on the other—have the ability to engage the world with far-reaching effects, including those that are disruptive and destructive.”⁷

“Inevitably, in this kind of environment, individuals, families, neighborhoods, communities, and the private sector will likely play an increasingly active role in meeting emergency management needs. The public’s ability and desire to self-organize will grow, as the role of the individual, access to information, and technology all evolve.”⁸

Emergency management on a more local level must be addressed just as seriously as nationwide threats and Texas has its own fair share of challenges. The ongoing Texas drought and water shortages have affected all of our 254 counties and from April 2011 to December 2011, 183 counties were challenged with wildfires. In the period from July 1, 2011 to October 25, 2012, Texas experienced 22,548 fires, burning 758,106 acres and destroying 2,410 homes.⁹ While our State and local response to these disasters has been admirable, the situations have provided opportunities to increase our understanding of even more effective preparation, prevention and response in the future and to implement practices and evaluate critical infrastructure necessary to our State’s resiliency.

Background and Purpose: Building a Culture of Resilience

No person or place is immune from disasters or disaster related losses. Infectious disease outbreaks, acts of terrorism, social unrest, cyber-insecurity or financial disasters in addition to natural hazards can all lead to large-scale consequences for the nation and its communities. Communities and the nation thus face difficult fiscal, social, cultural and environmental choices about the best ways to ensure basic security and quality of life against hazards, deliberate attacks and disasters. Beyond the unquantifiable costs of injury and loss of life from disasters, statistics for 2011 alone indicate economic damages from natural disasters in the United States exceeded \$55 billion, with 14 events costing more than a billion dollars in damages each. [In 2012, Hurricane Sandy is estimated to have incurred a cost of \$60 billion alone.]

One way to reduce the impacts of disasters on the nation and its communities is to invest in enhancing resilience. [Resilience is] the ability to prepare and plan for, absorb, recover from and more successfully adapt to adverse events. [...] Enhanced resilience allows better anticipation of disasters and better planning to reduce disaster losses—rather than waiting for an event to occur and paying for it afterward. However, building the culture and practice of disaster resilience is not simple or inexpensive. Decisions about how and when to invest in increasing resilience involve short- and long-term planning and

investments of time and resources prior to an event. Although the resilience of individuals and communities may be readily recognized after a disaster, resilience is currently rarely acknowledged before a disaster takes place, making the “payoff” for resilience investments challenging for individuals, communities, the private sector, and all levels of government to demonstrate.¹⁰

Building resilience toward the [...] future [...] requires a paradigm shift and a new national “culture of disaster resilience” that includes components of:

- Taking responsibility for disaster risk;
- Addressing the challenge of establishing the core value of resilience in communities, including the use of disaster loss data to foster long-term commitments to enhancing resilience;
- Developing and deploying tools or metrics for monitoring progress toward resilience;
- Building local community capacity, since decisions and the ultimate resilience of a community are driven from the bottom-up;
- Understanding the landscape of government policies and practices to help communities increase resilience; and
- Identifying and communicating the roles and responsibilities of communities and all levels of government in building resilience.¹¹

Bottom-up interventions—the engagement of communities in increasing their resilience—are essential because local conditions vary greatly across the country [and the State]; the nation’s communities are unique in their history, geography, demography, culture, and infrastructure; and the risks faced by every community vary according to local hazards. Some universal steps can aid local communities in making progress to increase their resilience and include:

- Engaging the whole community in disaster policymaking and planning;
- Linking public and private infrastructure performance and interests to resilience goals;
- Improving public and private infrastructure and essential services (such as health and education);
- Communicating risks, connecting community networks, and promoting a culture of resilience;
- Organizing communities, neighborhoods, and families to prepare for disasters;¹²
- Supporting the development of electronic health information systems;

- Supporting the development of technologies that enhance social connectedness;
- Inviting residents with functional needs to participate in the process of emergency preparedness and response planning and to view such residents as community assets rather than vulnerable populations or liabilities;
- Developing strong partnerships between government and nongovernmental organizations for planning, response, and recovery;
- Promoting widespread adoption of both business-continuity plans for public and private critical agencies ¹³

As a concept, Whole Community is a means by which residents, emergency management practitioners, organizational and community leaders, and government officials can collectively understand and assess the needs of their respective communities and determine the best ways to organize and strengthen their assets, capacities, and interests. By doing so, a more effective path to societal security and resilience is built. In a sense, Whole Community is a philosophical approach on how to think about conducting emergency management. A Whole Community approach attempts to engage the full capacity of the private and nonprofit sectors, including businesses, faith-based and disability organizations, and the general public, in conjunction with the participation of local, tribal, state, territorial, and Federal governmental partners. The benefits to a Whole Community approach include:

- Shared understanding of community needs and capabilities
- Greater empowerment and integration of resources from across the community
- Stronger social infrastructure
- Establishment of relationships that facilitate more effective prevention, protection, mitigation, response, and recovery activities
- Increased individual and collective preparedness
- Greater resiliency at both the community and national levels ¹⁴

We have seen throughout the National Planning Frameworks firm statements to the emergency management community about full inclusion of the whole community, but this concept is not fully yet embraced by the emergency management and homeland security community at the local and state level. These attitudinal barriers keep people with and without disabilities who have access and functional needs from the planning table where in many cases, they are the true experts. If resiliency is defined as the ability to “withstand, respond to, adapt to and recover from”... people with disabilities do this every day. Emergency managers and the homeland security community can:

- Ask people from the Whole Community to be involved
- Value and appreciate their input, trust and respect their input and expertise

- Build relationships on common values
- Teach about risks and preparedness tools
- Ask people to reach out to their networks
- Involve children and young people and educate early on the civic importance of preparedness
- Embrace creativity and social media
- Encourage participation at the local level
- Communicate the message in plain, simple ways
- Collaborate across all levels of government and community

Whole Community Principles

The Governor's Committee position is simply this: Texas should welcome all its citizens into the emergency management and homeland security narrative because Texas cannot spare the talents of any person willing to serve.

Community engagement can lead to a deeper understanding of the unique and diverse needs of a population, including its demographics, values, norms, community structures, networks, and relationships. One size does not fit all. The more we know about our communities, the better we can understand their real-life safety and sustaining needs and their motivations to participate in emergency management-related activities prior to an event.

Engaging the whole community and empowering local action will better position stakeholders to plan for and meet the actual needs of a community and strengthen the local capacity to deal with the consequences of all threats and hazards. This requires all members of the community to be part of the emergency management team, which should include diverse community members, social and community service groups and institutions, faith-based and disability groups, academia, professional associations, and the private and nonprofit sectors, while including government agencies who may not traditionally have been directly involved in emergency management. When the community is engaged in an authentic dialogue, it becomes empowered to identify its needs and the existing resources that may be used to address them.

A Whole Community approach to building community resilience requires finding ways to support and strengthen the institutions, assets, and networks that already work well in communities and are working to address issues that are important to community members on a daily basis. Existing structures and relationships that are present in the daily lives of

individuals, families, businesses, and organizations before an incident occurs can be leveraged and empowered to act effectively during and after a disaster strikes.¹⁵

We need to become more local, more personal, and more immediate in our response to the potential for multiple catastrophic events and to empower the whole community to build its resilience at all levels. The bottom line is that we have to focus our attention on preparedness, readiness, resilience at the individual and local level.

We have work to do in helping citizens understand the need to be prepared. On the Governor's Committee Citizen Input Survey, 65 percent of respondents said they did not have an emergency preparedness kit and only half of respondents (50 percent) responded that they currently have an emergency plan.

Everyone has the responsibility before, during and after for disasters including people with disabilities. The community with disabilities wants to be seen as an asset in the community, not a liability. One of the first steps for emergency managers is to use inclusive and welcoming language. People with disabilities carefully listen to the spoken and unspoken messages that are delivered by the emergency management establishment. When people with disabilities hear terms like "special needs" and "vulnerable populations," it signals a marginalization of individuals who have needs, not rights. Vulnerable people must have things done for them; they are recipients not equal partners. Emergency Managers would do well to change the narrative and seek to integrate equal access and participation of community members with disabilities into all aspects of emergency planning, services, transportation, sheltering, education, mitigation and recovery.

"Consider these numbers, according to a Congressional Research Service [report](#), between 2001 and 2011, Congress approved \$1.28 trillion dollars for the Operation Enduring Freedom (OEF) Afghanistan and other counter terror operations; Operation Nobel Eagle (ONE), providing enhanced security at military bases; and Operation Iraqi Freedom (OIF)."¹⁶

That amount translates into a burn-rate of \$350 million for each and every day for ten years. By contrast, the cost of one-hour of these war operations - \$15 million—has been the most that has been invested in the entire annual budget for the Citizens Corps Program which was initiated after 9/11 to engage citizens in the homeland security mission by volunteering to support emergency responders.¹⁷

The Committee believes that providing more resources for individual and community response is a strategic investment in resiliency that pays big dividends. Whether we are faced with routine natural events or a complex man-made or terrorist problem, public and private leaders as well as ordinary citizens must be able to adapt and be capable of developing effective responses. Building resilience at the local community level in a Whole Community approach is a vital need across our broad and diverse State.

Policy Recommendations:

- **Recommendation 4.1:** Ensure that all training courses for emergency management professionals address the requirements of people with disabilities and people with access and functional needs.
- **Recommendation 4.2:** Ensure that Texas Citizen Corps, Citizen Corps Councils, and Volunteer Organizations Active in Disasters (VOADs) activities reflect the Whole Community concepts with full inclusion of Texans with disabilities and those with access and functional needs.
- **Recommendation 4.3:** Facilitate Neighbor to Neighbor (N2N) initiatives in Texas with full inclusion and participation of Texans with disabilities and those with access and functional needs.
- **Recommendation 4.4:** Encourage all State Health and Human Service agencies providing services to Texans with disabilities to discuss emergency preparedness and evacuation planning.
- **Recommendation 4.5:** Require local emergency managers to integrate local residents with disabilities as active participants in the integrated planning and recovery process.
- **Recommendation 4.6:** Require State and local disaster jurisdictions to provide effective, accessible and timely public alert warnings.
- **Recommendation 4.7:** Invest resources in individual and community efforts to facilitate the overall resiliency of the community.

Background and Purpose: Our Changing Demographics

“The U.S. population is aging, growing increasingly diverse, and more frequently receiving health care at home. In addition, an increasing number of Americans are migrating to areas that are at a higher risk of hazard.”¹⁸ The 2010 Census found that approximately 56.7 million (18.7 percent) people living in the United States had some kind of disability.

As a generally accepted understanding of prevalence, the risk of having a disability increased with successively older age groups. At 70.5 percent, people in the oldest age group (people 80 years and older) were about 8 times as likely to have a disability as people in the youngest age group (children less than 15 years old), at 8.4 percent. Severe disability and the need for personal assistance also increased with age. The probability of severe disability was 1-in-20 for people aged 15 to 24, while 1-in-4 for those aged 65 to 69. Among the oldest group, more than half (55.8 percent) had a severe disability. Of individuals 55 to 64 years old and nearing retirement, about 6.0 percent needed assistance with one or more [activities of daily living]. The percentage needing assistance for those aged 80 and older was about 5 times as large (30.2 percent). For individuals with greater assistance needs, their disability is often associated with relocation out

of the non-institutionalized population and into nursing homes or other assisted living facilities. Approximately 1.3 million of the 40.4 million people aged 65 and older were living in nursing facilities in 2010. Were this population included, the disability rates for older age groups, and for people overall, would likely be higher.¹⁹

Texas's Population Growth

According to the U.S. Census Bureau, the [population of Texas](#) was 25,674,681 in 2011. Texas gained more people than any other state between April 1, 2010, and July 1, 2011 (529,000), followed by California (438,000), Florida (256,000), Georgia (128,000) and North Carolina (121,000), according to the latest U.S. Census Bureau estimates for states and Puerto Rico. Combined, these five states accounted for slightly more than half the nation's total population growth.²⁰

Although new patterns of growth have emerged since the 2010 Census, some trends persist from the last decade. One such example is the growth in Texas. There were five large metro areas (2011 populations of at least 1 million) among the 20 fastest growing from 2010 to 2011. Four of them were in Texas: Austin (2nd), San Antonio (16th), Dallas-Fort Worth (17th) and Houston (18th). Looking at numeric growth, Dallas-Fort Worth and Houston added more people between 2010 and 2011 than any other metro area (155,000 and 140,000, respectively). These two metro areas were the biggest numeric gainers during the 2000 to 2010 period (with Houston gaining more than Dallas-Fort Worth over the decade). Among the 50 fastest-growing counties from 2010 to 2011, 38 were in the South, with the remaining 12 split equally between the Midwest and West. Texas contained more of these counties than any other state, with 12.²¹

In keeping with the 1 in 5 population estimates of people with disabilities nationwide, Texas's population for people with disabilities is estimated to be 5.1 million.

Population Trends Impacting Emergency Management

“As of 2003, 53 percent of the nation's population lived in the 673 U.S. coastal counties, an increase of 33 million people since 1980.”²²

To be able to assess the resources needed for the entire community when a disaster strikes, emergency managers must ensure that demographic trends are factored into their emergency plans. [For example,]

- An estimated 13 million individuals age 50 or older in the United States will need evacuation assistance, and for about half of them, such assistance will be required from someone outside of their household.
- More than 1.4 million people in the United States receive home healthcare.²³

- Transportation-disadvantaged populations, including those that cannot provide their own transportation due to age, disability, or income constraints, may face challenges in accessing transportation, such as lack of access to public transportation or a private vehicle. For example, according to a 2011 report by the National Council on Disability, “people with disabilities are more likely than people without disabilities to report that they have inadequate transportation (34 percent versus 16 percent, respectively).”²⁴
- The number of Texans aged five and older who spoke a language other than English at home from 2006-2010 is estimated at 34.2 percent.²⁵

All of the above statistics indicate the need for advance thought and planning by local, State and tribal emergency professionals in Texas.

Emergency managers can draw from community representatives to establish an advisory committee on people with disabilities and unique functional needs. The committee should consist of a cross-section of community residents with disabilities and unique functional needs, as well as, representatives from the local emergency management agency, service provider organizations, advocacy groups, and local government agencies.²⁶

In January of 2010, a multi-disciplinary group of stakeholders including various representatives from disability organizations, State agencies, community groups and people with disabilities formed a Functional Needs Support Services (FNSS) Taskforce, which created a functional needs support services [toolkit](#). Subsequently, three subcommittees were developed to look at effective communication, preparedness and outreach and training related to the Texas community with disabilities. The work of the subcommittees is ongoing, with one representative from the FNSS Taskforce as a representative to the Emergency Management Advisory Council (EMAC.)

Background and Purpose: Social Media and Disaster Management

Technology is empowering the world to communicate in real time across vast distances reaching diverse audiences. In the past, State and local governments’ emergency warnings mainly consisted of warning sirens and messages broadcast over radio and television. More recently, mobile technology and the use of smart devices has opened up significant avenues to notification and warning and situational awareness in disasters, and with the increased accessibility of smart devices and applications, people with disabilities are able to receive information in many cases just as fast as the population without disabilities. Getting the right information to the right people in times of disaster is a time-sensitive and strategic skill. The convention of demand and supply are often out of sync in a disaster situation. Recent mobile technology opens up platforms for crowdsourcing and crisis mapping, allowing emergency managers to triage millions of tweets, short message service (SMS) text messages, photos and email into data which then can be used to make meaningful and timely decisions.

For instance, in 2009 the U.S. Army used its Twitter account to provide news and updates during the Fort Hood shootings; the American Red Cross similarly uses Facebook to issue alerts to potential disasters. However, the main source of information disseminated and sought after is generally posted by citizens, rather than emergency management agencies or organizations. For example, warning messages via the Internet during the Virginia Tech shootings in April of 2007 came primarily from students and unofficial sources, and during the 2007 Southern California Wildfires, citizens sought information through social media because they felt media sources were too general or inaccurate.²⁷

These are only a few examples of how technological change and innovation is changing the emergency management communications landscape.

The pace of technological change—from biotechnology and nanotechnology to information and communication technology—is accelerating and affecting nearly every facet of life. Smart phones, high-speed internet, and “cloud” computing, to name only a few examples, are transforming how people do business, communicate, and carry out essential services such as health care. But the increased pervasiveness of technology is exposing new risks: dependence on computer systems to manage operations in multiple sectors, such as water, telecommunications, and transportation infrastructure, increases systemic vulnerabilities, including the threat of cyber-attacks.

Furthermore, technological innovation and the public’s evolving expectations of government are fundamentally altering how individuals interact with society—leading to a redefinition of community. It is increasingly clear that there are many different kinds of communities, including communities of place, interest, belief, and circumstance, which can exist both geographically and virtually. Along with the changing profile of communities, new tools empower the public to play a greater role in identifying “what matters” and producing content themselves. In addition, evolving patterns of information flow have changed the role of the media and modes of information exchange. The explosion of social media and personal communications technology will continue to increase real-time access and delivery of information. Public access to “raw” data sources, such as Data.gov, expands the possibilities of how existing information can be used and increases expectations of government transparency.²⁸

Ordinary citizens now are hyper-informed and have access to real time information at the same rate as emergency management professionals in the field. And with the improved accessibility of hardware and apps, people with disabilities are utilizing social media in disasters and emergency management. Some issues that are important based on input on the 2012 Texas Governor’s Committee Citizens’ Input Survey are that 86 percent of respondents said that they “strongly agreed” that emergency notification and warnings are provided in multiple formats, including formats that are accessible to people who are blind, deaf, hard-of-hearing, or use American Sign Language and 82 percent responded that they felt people with disabilities should be integrated into the planning process for emergencies at the state and local level. Additionally, citizens responded that they are using social media; Facebook (81 percent), YouTube (40 percent), Google+ (36 percent) and Twitter (17 percent). However, they responded that

they get information from a variety of sources, such as smartphones (54 percent), landline phone (44 percent), text messaging (50 percent), laptop computer (56 percent), as well as, television (85 percent) and radio (60 percent). The disability community has strong ties to the community with 70 percent of respondents stating that they get most of their information from family and friends.

Worldwide, mobile devices have become the preferred choice for communication and internet access. There were 4.6 billion mobile phone subscribers in 2009 up from 1.8 billion in 2004 (39 percent increase). If trends continue, it is predicted there will be 6.9 billion mobile phone subscribers worldwide by 2020 (67 percent increase). In 2009, half a billion mobile phone subscribers used their device to connect to the internet. This number is expected to double to one billion by 2015. Information searches, mapping/location, messaging, social networking, and music downloads are among the current and projected most popular mobile internet sites accessed by mobile device users. Facebook, the world's most popular social networking site, currently has 500 million users of which 200 million (40 percent) access the system through mobile devices.²⁹

The use of all forms of social media has become an integral and vital element in addressing emergency situations to entire communities, but they provide a significant benefit to many people with disabilities. The inclusion of the use of various forms of social media can be used to: alert emergency managers and officials to certain situations by monitoring the flow of information from different sources during an incident. Monitoring information flows could help establish "situational awareness." Situational awareness is the ability to identify, process and comprehend critical elements of an incident or situation. Obtaining real-time information as an incident unfolds can help officials determine where people are located, assess victim needs, and alert citizens and first responders to changing conditions and new threats.³⁰

New platforms such as [Ushahidi](#) and open source crowdsourcing mapping, are two recent tools that help with situational awareness, allowing limited resources and staff to be triaged where they are needed most.

One recent tool used by emergency managers that has proven successful is a Virtual Operations Support Team (VOST).

Virtual Operations Support (VOS) as applied to emergency management and disaster recovery is an effort to make use of new communication technologies and social media tools so that a team of trusted agents can lend support via the Internet to those on-site who may otherwise be overwhelmed by the volume of data generated during a disaster. VOS Teams (VOST) are activated to perform specific functions in support of affected organizations and jurisdictions. Each VOST has a Team Leader that reports directly to the affected organization or local jurisdiction.

A VOST can be defined as a team that accomplishes some or all of the following:

- Establishes a social media presence for an organization that previously did not use social networking tools to communicate with the public;
- Monitors social media communications;
- Handles matters that can be executed remotely through digital means such as assisting with the management of donations or volunteers;
- Follows social media and traditional media trends and reports back to the organization what is being seen;
- Identifies misinformation or angry postings that need to be corrected or dealt with;
- Provides a supportive voice for the organization and its efforts;
- Amplifies the organization's message by repeating content (via personal and/or official social media accounts);
- Compiles media coverage (traditional and non-traditional) by date ³¹

The Committee believes that a hybrid team called a [Disability Virtual Operation Support Team](#) (DVOST) could perform similar functions using various forms of social media to provide technical assistance and triage to first responders from the network of disability-related supports and services.

Above all, with the use of all forms of technology, community resources, organizations and networking, the ultimate goal is effective communication with the public.

Under Title II of the ADA, all State and local governments are required to take steps to ensure that their communications with people with disabilities are as effective as communications with others. This requirement is referred to as “effective communication” and it is required except where a state or local government can show that providing effective communication would fundamentally alter the nature of the service or program in question or would result in an undue financial and administrative burden.[...] Simply put, “effective communication” means that whatever is written or spoken must be as clear and understandable to people with disabilities as it is for people who do not have disabilities. ³²

Policy Recommendations:

- **Recommendation 4.8:** Support the use of information sharing and the use of developing emerging technologies to advance emergency management capabilities.

- **Recommendation 4.9:** Explore ways for emergency management and healthcare professionals to use the power of social media tools such as Twitter, YouTube, Flickr, Facebook, crowdsourcing, crisis mapping and others to create avenues for real-time information gathering during active disasters.
- **Recommendation 4.10:** Explore the use of a Disability Virtual Operations Support Team to provide technical assistance for issues related to people with disabilities and access and functional needs in disasters using various forms of social media.
- **Recommendation 4.11:** Ensure sufficient communications that employ both high tech and low-tech capabilities in the event of a disaster in order to reach all audiences.
- **Recommendation 4.12:** Expand, enhance, and increase the use of social media in non-disaster times to ensure public awareness of community preparedness for all hazards in Texas.
- **Recommendation 4.13:** Utilize charitable and humanitarian giving via smart phones for disasters in Texas.
- **Recommendation 4.14:** Utilize technology to provide accessible webinars, materials and reports relevant to emergency management and issues related to Texans with disabilities.
- **Recommendation 4.15:** Encourage State enforcement of guidelines for broadcasters, cable operators, and satellite television services to comply with the equal access to public warnings requirement for the [Emergency Alert System](#).
- **Recommendation 4.16:** Encourage the Texas Association of Broadcasters to educate programming distributors, broadcasters, cable operators, and satellite television services on their [legal obligation](#) to make emergency information accessible to people with hearing and vision disabilities.
- **Recommendation 4.17:** Require State and local emergency management professionals to comply with their legal obligations to provide effective communication to Texans with disabilities and to people with access and functional needs.

Background and Purpose: Youth Preparedness and Cultural Change

Emergency Management planners and professionals would do well to consider the needs and the role of youth and children in their planning and response. Because many emergency situations may happen without advance warning, the arrival of emergency personnel on the scene may not be immediate. Taking into account the perspective, needs, and potential input from children and youth in the community can benefit all aspects of planning and responding to emergency situations.³³

The best way to reverse this trend is to educate young people on both the “practical necessity and the opportunity to serve others.”³⁴

It is important that children know what to do in an emergency and that all disaster planning, preparedness, response, and recovery efforts include children's unique needs and assets. [...]

While children have unique needs during an emergency, they can also play a very important role when it comes to preparedness. [Consider the following points.]

- Children involved in youth preparedness programs can effectively spread important messages about preparedness to their family members. They can be change agents. Participating in emergency preparedness activities such as helping parents create a disaster supply kit, collecting items for the kit, making a family preparedness plan, or creating a list of emergency numbers not only empowers children but also educates adults about preparedness.
- By participating in youth preparedness programs, children are empowered to become leaders at home and in their schools and communities. Children who have participated in preparedness programs across the nation have responded in emergency situations and have taught others about preparedness.
- Studies and anecdotal evidence support the idea that children who have learned about emergency preparedness experience less anxiety during an actual emergency. The knowledge of what to do during an emergency empowers them to act with confidence and enables them to become active participants in emergency efforts.
- Children are often overlooked in being an active member of family preparedness activities. They can and should take an active role.
- Many adult preparedness programs exist, but for children to be effectively prepared, they need to receive age-appropriate materials and messaging. Many community preparedness programs don't offer this.
- Behavioral changes – As children are learning about preparedness and bringing the information to their families, a behavioral shift will occur, making family preparedness a priority.
- Community cohesion – Working with business, leaders, and other organizations will create a unified team of citizens within the community dedicated to a common goal.
- First Responder familiarity – For many youth, seeing first responders, police officers, and emergency personnel incite fear or uncertainty. Youth preparedness programs that enable first responders to work with children help cultivate positive relationships and help children understand that first responders play a positive role in their communities.³⁵

Inherent in our children is the innovation, drive, and imagination that have made, and will continue to make, this country great. By investing energy, talent, and dollars now in the education and training of young Americans – the scientists, statesmen, industrialists, farmers, inventors, educators, clergy, artists, service members, and parents, of tomorrow – we are truly investing in our ability to successfully compete in, and influence, the strategic environment of the future. Our first investment priority, then, is intellectual capital and a sustainable infrastructure of education, health and social services to provide for the continuing development and growth of America's youth.³⁶

Policy Recommendations:

- **Recommendation 4.18:** Support efforts to establish a Youth Preparedness Council, including youth with disabilities in Texas.
- **Recommendation 4.19:** Support efforts in Texas public schools to educate all students, including students with disabilities, on emergency preparedness and planning for their community.

Background and Purpose: Emergency Planning During the School Day

During 2012, across the country wildfires destroyed hundreds of homes and displaced many Americans bringing to the forefront of concern the need for more emergency preparedness efforts by individual citizens.

When [the 2011] earthquake shook the eastern United States without warning, it served as a powerful reminder that a major disaster can strike anywhere at any time. Sending shockwaves through our nation's capital and other East Coast cities just before 2 p.m. on Tuesday, August 23, 2011, the earthquake demonstrated that emergencies, natural or manmade, can and do take place during the workday, a time when our nation's youngest, most vulnerable citizens are at school or in child care.

During normal working (and school) hours—which total more than 2,000 hours a year—the safety of nearly 68 million of our country's children is in the hands of school officials and caregivers. Most parents assume that when they drop their kids off for the day, they will be safe if disaster strikes. But two-thirds of our nation's states do not require basic emergency preparedness regulations for child care facilities and schools. [...]

For the fifth consecutive year, Save the Children conducted an assessment of all 50 states and the District of Columbia on four basic disaster preparedness and safety standards for children in child care and at school. In addition to evaluating every state's basic emergency preparedness for children, this year's report highlights a critical standard which every state should have in place to address the needs of the most vulnerable children attending child care—infants and toddlers, as well as children with disabilities

and those with access or functional needs. More than half of the states fail to account for these children in their emergency preparedness plans.

[The report noted that:]

- Over the last five years, the number of states meeting all four standards has increased from four in 2008 to 17 in 2012.
- While 17 states now meet all four basic preparedness standards, 33 states and the District of Columbia still do not.
- Twenty-seven states do not require all regulated child care facilities to have a plan that accounts for kids with disabilities and those with access and functional needs.
- Five states—Idaho, Iowa, Kansas, Michigan and Montana—fail to meet any of the preparedness standards for regulated child care facilities or schools, putting many children at risk.³⁷

Texas [currently has](#) requirements for schools to have an evacuation and relocation plan, a family and child reunification plan and a K-12 multiple disaster plan; however, it currently does not have any planning requirements specific to children with disabilities.³⁸

Policy Recommendations:

- **Recommendation 4.20:** Strengthen existing Texas law to require Texas schools to create multi-hazard, comprehensive emergency preparedness plans that include children with disabilities and those with access and functional needs.
- **Recommendation 4.21:** Promote efforts to infuse emergency management principles and life skills across the entire educational experience to empower individuals, including children and youth.

Background and Purpose: Next Generation 9-1-1

The existing Americans with Disabilities Act (ADA) Title II regulations:

require that Public Safety Answering Points (PSAPs) provide direct, equal access to telephone emergency centers for individuals with disabilities who use analog text telephones (TTYs). [...] Many individuals with disabilities now use the Internet and wireless text devices as their primary mode of telecommunications. At the same time, PSAPs are considering and planning to shift from analog telecommunications technology to new Internet-Protocol (IP)-enabled Next Generation 9-1-1 services (NG 9-1-1) that will provide voice and data (such as text, pictures, and video) capabilities.³⁹

Currently, the Department of Justice has an Advance Notice of Proposed Rule Making (ANPRM) out for comment regarding NG 9-1-1. This ANPRM seeks “information on possible revisions to the Department’s regulation to ensure direct access to NG 9-1-1 services for individuals with disabilities.”⁴⁰

And on December 12, 2012, the Federal Communications Commission (FCC) proposed to require all wireless carriers, including certain providers of text messaging applications, such as iMessage, to make it possible for customers to send text messages to 9-1-1. The four largest wireless carriers have already voluntarily committed to make texting to 9-1-1 possible by May 15, 2014. Text-to-9-1-1 will provide millions of people with hearing and speech disabilities, access to emergency services by enabling them to send a text message to 9-1-1. This will also provide consumers with enhanced access to emergency communications in situations where a voice call could endanger the caller, or a person with disabilities is unable to make a voice call. Text-to-9-1-1 will be available as an addition to, not a substitute for, voice calls to 9-1-1 services, and consumers should always make a voice call to 9-1-1 during an emergency if they can.⁴¹

Moreover, in February of 2012, Congress allocated funding for an interoperable Public Safety LTE network across the United States. The new Public Safety LTE network will bring many changes in the coming years to the way that public safety responders across Texas use data communications in their everyday jobs. More speed and dedicated, private bandwidth will allow for greater use of real-time video, public safety “Apps /App stores” as well as a wide-range of other capabilities. No area of public safety will be excluded from use of the network.

Texas has been very proactive in the development of PS LTE; in fact, Harris County today has the only working PS LTE network in the country operating on FCC approved licenses. The Committee supports the efforts to implement this network of interoperable communications across our state.⁴²

Policy Recommendation:

- **Recommendation 4.22:** Support the adoption of digital, interoperable, Next-Generation 9-1-1 services across the state that are capable of interacting with those in need with voice, TTY, SMS, and real-time text.

Background and Purpose: Congregate Living Preparedness

It is critical that nursing care and congregate living facilities have trained staff as well as updated and detailed emergency procedures in place. According to an [April 2012 report](#), by the Department of Health and Human Services:

Ninety-two percent of nursing homes have plans for handling tornadoes, hurricanes, floods or fires, and 72 percent have staff members trained in emergency procedures, as required by federal law. But after conducting in-depth inspections at 24 institutions, officials found significant gaps in preparations. Each of the homes had experienced a flood, a hurricane or a wildfire from 2007

to 2010, and 17 reported substantial challenges responding to these disasters. Yet 22 homes failed to specify how patients' medical records and medications would be dealt with in an emergency. Twenty-three had no plan for handling the illness or death of a resident in a disaster.

None of the emergency plans in place in these nursing homes included measures to ensure an adequate supply of drinking water for workers and patients. At 19 of them, there was no strategy to ensure an adequate fuel supply for backup generators. Ten homes had not addressed the need for adequate staffing during emergencies; 15 didn't detail how patients' needs for items such as feeding tubes, ventilators or oxygen would be handled.

One home had no procedures for dealing with floods, even though it was in a flood plain. None of the homes had participated in drills or exercises run by community emergency preparedness managers.

The results were a disappointing repeat of [a similar government report issued in 2006](#) — the first major study to track nursing homes' ability to respond to disasters after Hurricane Katrina struck the Gulf Coast in August 2005. In one tragic incident outside New Orleans, 35 residents of St. Rita's Nursing Home perished, some overcome by floodwaters in their beds. According to the Federal Emergency Management Agency, the states most likely to experience natural disasters are Texas, California, Oklahoma, New York, Florida, Louisiana, Alabama, Kentucky, Arkansas and Missouri, in that order. More than 1.1 million nursing home residents, or about 36 percent of the nation's total, live in those areas.⁴³

Policy Recommendations:

- **Recommendation 4.23:** Explore ways to increase nursing home and congregate living preparedness, mitigation and recovery during disasters.
- **Recommendation 4.24:** Encourage the use of tornado shelters in Texas for congregate living facilities in historically tornado-prone areas.
- **Recommendation 4.25:** Map at-risk populations in settings where significant numbers of Texans with disabilities live together, such as long-term care and assisted living facilities, schools of special education, hospitals, community mental health centers, group homes, [State Supported Living Centers](#) and [State Hospitals](#).
- **Recommendation 4.26:** Ensure that providers of various home and community-based health-related services receive the same priority as 'health care personnel' for vaccinations during a pandemic event.
- **Recommendation 4.27:** Ensure that prioritization of debris removal and utility restoration is provided to areas that serve people with disabilities in congregate and residential living facilities.

- **Recommendation 4.28:** Examine ways the State can promptly reimburse public organizations that exhausted critical resources during disasters for any donated equipment, food or medical supplies.
- **Recommendation 4.29:** Rebuild any infrastructure destroyed during a disaster in an accessible manner, to the greatest extent possible, using the newly adopted [2010 Americans with Disabilities Act Accessibility Guidelines \(ADAAG\)](#).
- **Recommendation 4.30:** Require a disability-focused performance evaluation and assessment for all State exercises and disaster responses as standard operating procedure for after-action reports.

Telemedicine

Telemedicine and Electronic Health Records (EHR) will change patient care and treatment. The U.S. Department of Health and Human Services defines telemedicine as “the use of medical information exchanged from one site to another via electronic communications to improve a patient’s health.” This includes using audio and video technologies to provide real time, two-way communication between patients and health care providers. EHR consist of an electronic version of a patient’s medical history (i.e. an electronic medical record) and the technology used by clinicians and patients to access that record. EHR can be used in conjunction with telemedicine to improve health care outcomes and reduce errors. The American Telemedicine Association’s current inventory of telemedicine-equipped facilities in the United States shows approximately 200 telemedicine networks linking 2,500 medical centers nationwide. ⁴⁴

Policy Recommendations:

- **Recommendation 4.31:** Explore the use of [telemedicine](#) for emergency management response to natural or disease-related disasters.
- **Recommendation 4.32:** Support the development of electronic health record systems to be used in conjunction with telemedicine to assist in disaster health management.

ENDNOTES

¹ FEMA (December 2011). *A Whole Community Approach to Emergency Management: Principals, Themes, and Pathways for Action*, FDOC 104-008-1. Retrieved from FEMA Library website: <http://www.fema.gov/library/viewRecord.do?id=4941>

² Testimony “The New Homeland Security Imperative: The Case for Building Greater Societal and Infrastructure Resilience” Written Testimony prepared for a hearing of the Committee on Homeland Security and Governmental Affairs U.S. Senate on “The Future of Homeland Security: Evolving and Emerging Threats,” Stephen E. Flynn, Ph.D. Founding Co-Director George J. Kostas Research Institute for Homeland Security & Professor of Political Science, Northeastern University, page 8

³ National Academies Program. (2012, August 1). *Disaster Resilience: A National Imperative*, p.122. Retrieved from the National Academies website: <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13457>

⁴ National Academies Program. (2012, August 1). *Disaster Resilience: A National Imperative*. p. 1 Retrieved from the National Academies website: <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13457>

⁵ Strategic Foresight Initiative. (January 2012). *Crisis Response and Disaster Resilience 2030: Forging Strategic Action in an Age of Uncertainty*, p. 2. Retrieved from the FEMA website: <http://www.fema.gov/library/viewRecord.do?id=4995>

⁶ Ibid, pg. 2

⁷ Department of Health Services (February 2010). *First Quadrennial Homeland Security Review*. Retrieved from the QHSR website: http://www.dhs.gov/xlibrary/assets/qhsr_executive_summary.pdf

⁸ Strategic Foresight Initiative. (January 2012). *Crisis Response and Disaster Resilience 2030: Forging Strategic Action in an Age of Uncertainty*, p. 3. Retrieved from the FEMA website: <http://www.fema.gov/library/viewRecord.do?id=4995>

⁹ Texas Department of Public Safety, Statistical data request memo, Paula Kay Logan Deputy Assistant Director, Recovery, Mitigation & Standards, Texas Division of Emergency Management, October 25, 2012

¹⁰ National Academies Program. (2012, August 1). *Disaster Resilience: A National Imperative*, p.1. Retrieved from the National Academies website: <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13457>

¹¹ National Academies Program. (2012, August 1). *Disaster Resilience: A National Imperative*. Retrieved from the National Academies website: <http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13457>

¹² National Academies Program. (2012, August 1). *Disaster Resilience: A National Imperative*, p.4 Retrieved from the National Academies website:

<http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13457>

¹³ Sophia, J., M.D., M.S.H.P., and Lurie, N., M.D., M.S.P.H. (2012, December 13). Disaster Resilience and People with Functional Needs. 367:2272-2273, DOI: 10.1056/NEJMp1213492. Retrieved from the NCBI website: <http://www.ncbi.nlm.nih.gov/pubmed/23234513>

¹⁴ FEMA (December 2011). *A Whole Community Approach to Emergency Management: Principals, Themes, and Pathways for Action*, FDOC 104-008-1, p. 3. Retrieved from FEMA Library website: <http://www.fema.gov/library/viewRecord.do?id=4941>

¹⁵ Ibid, p. 5

¹⁶ Belasco, A. (2011, March 29) *The Cost Iraq, Afghanistan, and Other Global War on Terror Operations Since 9/11*. Retrieved from the Congressional Research Service website: <http://www.fas.org/sgp/crs/natsec/RL33110.pdf>

¹⁷ Stephen E. Flynn, Ph.D, (2012, June 11) *The New Homeland Security Imperative: The Case for Building Greater Societal and Infrastructure Resilience*, p.4 Testimony to the Committee on Homeland Security and Governmental Affairs of the U.S. Senate

¹⁸ Parsons, B.S. and Fulmer, D. (2007). *The Paradigm Shift for Planning for Special-Needs Populations*, p. 1. Retrieved from the U.S. Department of Education website: http://rem.s.ed.gov/docs/SpecialNeeds_ParadigmShiftInPlanning_2007.pdf

¹⁹ Brault, M. (July 2012) *Americans with Disabilities: 2010*. P70-131, p. 6. Retrieved from the U.S. Census Bureau, Household Economic Studies of the U.S. Department of Commerce – Economic and Statistics Administration website: <http://www.census.gov/prod/2012pubs/p70-131.pdf>

²⁰ U.S. Census Bureau (2011, December 21). *Texas Gains the Most in Population Since the Census*. Retrieved from the U.S. Department of Commerce website: <http://www.census.gov/newsroom/releases/archives/population/cb11-215.html>

²¹ U.S. Census Bureau (2012, April 4). *Census Estimates Show New Patterns of Growth Nationwide*. Retrieved from the U.S. Department of Commerce website: <http://www.census.gov/newsroom/releases/archives/population/cb12-55.html>

²² Crossett, K.M., Culliton, T.J., Wiley, P.C. & Goodspeed, T.R. (September 2004). *Population Trends along the Coastal United States: 1980—2008*. [Coastal trends report series], p.1. Retrieved from the U.S. Department of Commerce - National Oceanographic and Atmospheric Administration website: http://oceanservice.noaa.gov/programs/mb/supp_cstl_population.html

-
- ²³ B.S. Parsons & D. Fulmer. (2007). *The Paradigm Shift for Planning for Special Needs Populations*, p. 1. Retrieved from the U.S. Department of Education website:
http://rem.s.ed.gov/docs/SpecialNeeds_ParadigmShiftInPlanning_2007.pdf
- ²⁴ National Council on Disability. (October 2011). *National Disability Policy: A Progress Report October 2011*. Retrieved from the NCD website:
http://www.ncd.gov/progress_reports/Oct312011#_Toc304437141
- ²⁵ United States Census Bureau. (2011). *Texas Quick Facts*. Retrieved from the U.S. Department of Commerce website: <http://quickfacts.census.gov/qfd/states/48000.html>
- ²⁶ State of Texas Functional Needs Support Services Integration Committee (June 2011). *Functional Needs Support Services Tool Kit*, p.8. Retrieved from Texas Department of Public Safety website:
<http://www.txdps.state.tx.us/dem/CouncilsCommittees/FNSSToolkit.pdf>
- ²⁷ Lindsey, B. (2011, September 6). *Social Media and Disasters: Current Uses, Future Options, and Policy Considerations*, p. 3. Retrieved from the Congressional Research Service website:
<http://www.fas.org/sgp/crs/homsec/R41987.pdf>
- ²⁸ Federal Emergency Management Agency. (January 2012). *Crisis Response and Disaster Resilience 2030: Forging Strategic Action in an Age of Uncertainty*, p. 7. Retrieved from the FEMA website:
<http://www.fema.gov/library/viewRecord.do?id=4995>
- ²⁹ Strategic Foresight Initiative. (May 2011). *Technological Development and Dependency: Long-term Trends and Drivers and Their Implications for Emergency Management*, p.2 Retrieved from the FEMA website: http://www.fema.gov/sites/default/files/orig/fema_pdfs/pdf/about/programs/oppa/technology_dev_%20paper.pdf
- ³⁰ Lindsey, B. (2011, September 6). *Social Media and Disasters: Current Uses, Future Options, and Policy Considerations*, p.4. Retrieved from the Congressional Research Service website:
<http://www.fas.org/sgp/crs/homsec/R41987.pdf>
- ³¹ Stephens K., (2012, December 31) *What is a Virtual Operations Support Team?* Retrieved from the Social Media and Emergency Management idisaster 2.0 website:
<http://idisaster.wordpress.com/2012/02/13/what-is-a-virtual-operations-support-team/>
- ³² U.S. Department of Justice. (2007, February 27). *ADA Best Practices Toolkit for State and Local Governments, Chapter 3, General Effective Communication Requirements Under Title II of the ADA*. Retrieved from U.S. DOJ website: <http://www.ada.gov/pcatoolkit/chap3toolkit.htm>
- ³³ Flynn, S. (May/June 2011). *Recalibrating Homeland Security: Mobilizing American Society to Prepare for Disaster*, Volume 90, No.3, p.131. Retrieved from the Foreign Affairs Journal website:
<http://www.omnilogos.com/2011/06/15/recalibrating-homeland-security-mobilizing-american-society-to-prepare-for-disaster/>

³⁴ Ibid, p. 9

³⁵ The National Office of Citizen Corps - FEMA Individual and Community Preparedness Division. (2012). *Youth Preparedness: Implementing A Community Based Program*, p. 2. Retrieved from the FEMA website:
http://www.citizencorps.gov/downloads/pdf/Youth_Preparedness_Implementing_A_Community_Based_Program_V5_508.pdf

³⁶ Y, Mr. & Slaughter, A. (2011). *A National Strategic Narrative*, p.7.. Retrieved from the Woodrow Wilson International Center for Scholars website:
<http://www.wilsoncenter.org/sites/default/files/A%20National%20Strategic%20Narrative.pdf>

³⁷ Save the Children. (2012). *Disaster Preparedness for Kids in the USA 2012*. Retrieved from Save the Children website:
http://www.savethechildren.org/site/c.8rKLIXMGIpI4E/b.7705371/k.10C/Disaster_Preparedness_for_kids_in_the_USA.htm?msource=usplpepp0812

³⁸ U.S. Center for Child Development and Resiliency (August 2012). *A National Report Card on Protecting Children During Disasters - Is America Prepared to Protect Our Most Vulnerable Children in Emergencies?*, p. 10. Save the Children website

³⁹ U.S. Department of Justice - Civil Rights Division. (2010, July 21). *Nondiscrimination on the Basis of Disability in State and Local Government Service: Accessibility of Next Generation 9-1-1* (DOJ-CRT-0111). Retrieved from the Federal Register website: <https://www.federalregister.gov/articles/2010/10/27/2010-27092/nondiscrimination-on-the-basis-of-disability-in-state-and-local-government-services-public>

⁴⁰ Ibid

⁴¹ U.S. Access Board, December 12, 2012, listserve announcement

⁴² Texas State Operation Center listserve, Todd M. Early, Deputy Assistant Director – Law Enforcement Support Division, Texas Statewide Interoperability Coordinator (SWIC), Public Safety Communications Service, Texas Department of Public Safety, January 11, 2012

⁴³ Graham, J. (2012, May 10). *When Disaster Strikes the Nursing Home*. Retrieved from The New York Times website: <http://newoldage.blogs.nytimes.com/2012/05/10/when-disaster-strikes-the-nursing-home>

⁴⁴ American Telemedicine Association. (2012). *About Telemedicine*. Retrieved from the ATA website: <http://www.americantelemed.org/i4a/pages/index.cfm?pageID=3308>